



*Financial Assistance Structure
and Strategy
(Phasing, Teaming, Funding)*

B1 Breakout Session Report-Out

**Solar America Initiative
Technical Exchange Meeting
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U.S. Department of Energy
Energy Efficiency and Renewable Energy



Group 1



Teaming and Phasing

- Down-select should be based upon performance, with maintaining flexibility within Technology Pathway Partnerships (Do not force arbitrary down-selects)
- Provide TPP flexibility of choosing the portfolio to achieve SAI Goals and to add/remove/edit sub-contractors
- DOE should consider both “Teaming and Phasing” together.
- IP considerations abound, DOE needs to issue guidance for participants to work across Technology Pathway Partnerships



“Class” Size

- Demonstrate team credibility to perform - not #MW capacity installed
- “Cost-Share” needs to be determined more clearly
- Be flexible in nature to capture capital expenditures
- PRO: Provides opportunity for small firms to participate CON: Shuts the small firm out of the large funding category
- Alternatives: Make award size flexible, prevent large companies from shutting out smaller firms (i.e. delete clause giving preference to larger cost-share)



LAB Roles in Support Technology Pathway Partnerships

- Validation of 3rd party components
- Provide state of art modeling, analytic tools, testing
- Measurement and modeling of reliability of components and systems
- Establish protocol for access of lab facilities – give Technology Pathway Partnerships priority etc.



Alternatives to 2 Class Structure

- Technology Pathway Partnerships be the Team that meets SAI Goals
- No require total vertical integration
- Final system cost only driver



University Participation

- Give Technology Pathway Partnerships flexibility to incorporate universities to enhance teams.
- University Consortium for Technology Pathway Partnerships
- Model systems installed throughput, efficiency and cost
- should have freedom to use



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Group 2



Principles for Selection & Portfolio Management

- DOE should maintain balance between low-risk, evolutionary tech development in large companies and high-risk “disruptive” tech development in new entrants
 - Emphasis potentially more on high-risk
- Selection should be based on greatest potential impact on system parameters (LCOE)
 - Some less “vertically-integrated” teams may have more LCOE impact
 - Mechanism for assessing reasonable DOE investment per LCOE impact in this open construct is not well defined
- Link cost (\$/Wp, \$/kWh) with mfg capacity or scalability (MW/yr) in requirements for project proposal



Alternative Approach – Teaming & Phasing

- Consider permitting initial Phase 1 with BOTH systems teams and sub-system teams (component, supply chain teams)
 - For sub-system teams, Phase 1 begins with preliminary systems engineering (setting performance parameters that they will directly address in Phase 1), proceeds to R&D tasks on targeted performance parameters in “core competency”
 - Mitigates problems with forming full system teams given imperfect information about other component suppliers and optimal design requirements for their “improved” components
 - Expectation is that sub-system teams will transition to systems teams at beginning of Phase 2 (new solicitation)



Funding & Down-selects

- Award Levels
 - Sub-system teams: Recommended minimum threshold of \$3-5M/yr (DOE Award) – no upper bound well defined
 - System teams: Recommended minimum of \$5-10M (DOE Award) – no upper bound well defined
 - Should be calibrated with flexibility to projected LCOE impact
- Preserve flexibility in managing down-selects relative to program's budget
 - Do this to reward team performance, not to “flatten” budget